Subject: On the matter of GPS Interference and Lightsquared licensing

Before the Commission,

I am a technical consultant with field and laboratory experience in matters of radio interference. I'm also a sailor who expects my satellite navigation devices to operate with unfettered access to satellite signals.

I note this matter has transcended GPS issues having assumed an international posture. You have recently heard from the European Commission. Aeronautical organizations who maintain international standards for avionics navigation equipments have also voiced their concerns. I'm sure the Commission finally understands they are affecting the viability of every Global Navigation Satellite System (GNSS) that operates in the internationally recognized L1 band.

Somehow you were expecting working group testing to conclusively prove there is no 'real world' compatibility problem. Unfortunately, the testing exposes many difficulties to be expected when operating the Lightsquared network.

Ironically, the Commission recognizes problems associated with receiver blocking having imposed the protections of 'quiet zones' about FCC monitoring and radio astronomy facilities. Receiver blocking by gain compression and intermodulation mixing is well understood in radio art.

If you had considered the technicalities of your 'fast track' Lightsquared action with respect to the salient characteristics of GNSS based devices, a signal power dynamic range issue and attendant receiver blocking problem would have been immediately obvious. That should also have been evident to Lightsquared and its equipment providers.

Lightsquared claims they can resolve the interference for 99.5% of GPS users by rephrasing their network rollout. Certainly, mobile phone handsets and personal navigation devices vastly outnumber precision class receivers. This is a draconian statistical numbers game; a rather evil spirited tack:

1) Are they expecting the rest of us to sacrifice that 0.5% who rely upon precision GNSS for 'unimportant' purposes such as growing our food, surveying our land, constructing infrastructure or understanding geophysical phenomena?

2) Lightsquared's filter argument is academic at best. Nothing in the report proves a realizable filter exhibiting required electrical and physical properties currently is realizable, especially for aeronautical and high precision equipments. You cannot impose a technical solution upon the GNSS industry that isn't founded in credible science.

Lacking a solution founded in credible science, this entire matter is unfortunately trending towards socio-economic arguments. Which technology will save more lives? Which technology is a more robust 'jobs program'? Which technology generates more output into the Gross Domestic Product? What's best for 'Our children'!

I offer my opinions:

1) The Commission must reject the socio-economic red herrings. GPS was conceived three decades ago to provide Positioning, Navigation and Timing (PNT) and it has a proven record doing that. It wasn't then and isn't now a 'jobs program' and shall not be forced to compete with Lightsquared or any other commercial entity on that basis.

2) The Commission shall not nullify the intellect embodied within our current GPS technologies thereby forcing a technological regression to the last century.

3) GPS technologies have evolved in a manner that is incompatible with the Commission wireless networking initiatives. The Commission must recognize that as an inconvenient truth.

4) Obviously, the problem isn't solved unless every application retains its current quality PNT in a post Lightsquared electromagnetic environment.

As a practical matter, the Commission must withhold authority for Lightsquared operations.

Charles Seitz